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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/614,755	07/07/2003	Kevin McQuistian	283359-00368	6137

3705 7590 05/27/2005

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EXAMINER
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JULES, FRANTZ F

ART UNIT	PAPER NUMBER
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3617

DATE MAILED: 05/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 10/614,755	Applicant(s) MCQUISTIAN ET AL.	
	Examiner Frantz F. Jules	Art Unit 3617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 13 April 2005.
- 2a) ☒ This action is **FINAL**.      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 and 5-10 is/are rejected.
- 7) ☒ Claim(s) 2-4, 11-18 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

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## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 5-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over McQuistian (US 6,648,276 B1) in view of Hartung (US 4,637,579).

Claims 1, 5-6

McQuistian discloses a linkage structured to operatively extend between a railroad switch machine and a pair of movable rails of a railroad switch, the linkage comprising a pair of first rail lugs (A, D), see attached sketch; a pair of second rail lugs (B, C); one of the first rail lugs and one of the second rail lugs being structured to be operatively connected with one of the movable rails, the other of the first rail lugs and the other of the second rail lugs being structured to be operatively connected with the other of the movable rails; an operating spread rod (E) adjustably extending between the first rail lugs; an operating lug (F) structured to be connected with an operating rod of the railroad switch machine as shown in fig. 2; an operating connecting rod (G) adjustably extending between the one of the first rail lugs and the operating lug (F); a lock spread rod (28) adjustably extending between the second rail lugs as shown in fig. 1; a lock lug (8) coupling structured to be connected with a lock rod (30) of the railroad switch machine; a lock connecting rod (34) adjustably extending between the one of the

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second rail lugs and the lock lug (8); a point detector lug (12) structured to be connected with a point detector rod (40) of the railroad switch machine, a point detector connecting rod (44) adjustably extending between the one of the second rail lugs and the point detector lug; the operating spread rod, the operating connecting rod, the lock spread rod, the lock connecting rod each being substantially straight and at least partially threaded. The connecting rods being each independently adjustable.

McQuistian teaches all of the features as listed above but does not disclose a point detector connecting rod that is substantially straight and at least partially threaded. The general concept of providing a point detector connecting rod that is substantially straight to a linkage structure of a switch machine is well known in the art as illustrated by Hartung which discloses the teaching of a point detector connecting rod (46) of the detector rod assembly (26) that is substantially straight and at least partially threaded in coupling relationship to a point detector, see col 3, lines 18-22. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify McQuistian to include the use of a point detector connecting rod that is substantially straight and at least partially threaded in his advantageous linkage structure of a switch machine as taught by Hartung in order to facilitate maintenance of the linkage structure.

3. Claims 7-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over McQuistian (US 6,648,276 B1) in view of Hartung and Schwiede (US 20020060273 A1).  
Claims 7-10

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McQuistian and Hartung teaches all the limitations of claims 7-10 except for switching assembly comprising a point detector connecting rod that is substantially straight and at least partially threaded in addition to a first hollow tie housing the operating connecting rod and lock rod and a second hollow tie housing the lock spread rod, the lock connecting rod, and the point detector connecting rod. The general concept of providing a point detector connecting rod that is substantially straight to a linkage structure of a switch machine is well known in the art as illustrated by Hartung which discloses the teaching of a point detector connecting rod (26) that is substantially straight and at least partially threaded in coupling relationship to a point detector. Also, the general concept of providing "a first hollow tie housing an operating connecting rod and lock rod and a second hollow tie housing a lock spread rod, a lock connecting rod, and a point detector connecting rod" in a switching assembly is well known in the art as illustrated by Schwiede which disclose the teaching of "a first hollow tie (2a) housing an operating connecting rod and lock rod and a second hollow tie (2b) housing the lock spread rod, the lock connecting rod, and the point detector connecting rod" in a switching assembly, see col 1, lines 20-60. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify McQuistian to include the use of a point detector connecting rod that is substantially straight and at least partially threaded in his advantageous linkage structure of a switch machine as taught by Hartung in order to facilitate maintenance of the linkage structure. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify McQuistian to include the use of "a first hollow tie housing an operating connecting rod

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and lock rod and a second hollow tie housing a lock spread rod, a lock connecting rod, and a point detector connecting rod" in his advantageous switching assembly as taught by Schwiede in order to prevent movement at the switch location leading to deformation and damage of the switch parts in addition to difficulty and cost during standard tamping and maintenance of the rail bed.

***Allowable Subject Matter***

4. Claims 2-4, 11-18 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Response to Arguments***

5. Applicant's arguments filed 11/19/04 have been fully considered but they are not persuasive.

**A. Summary of applicant's**

In the amendment, applicant traversed the rejection of claims 1, 5-10 for the following reasons:

1. The prior art used in the combination rejection, Hartung, "does not disclose, teach, or suggest a point detector connecting rod that is substantially straight and at least partially threaded, as has been asserted by the Examiner. While the connector rod (46) appears from the perspective of Fig. 1 to be substantially straight, it is noted that the connector rod (46) must pass underneath a rail for connection with other structures, and known bends in the lock rod (40) that are depicted in Figs. 3 and 4 of Hartung are not similarly depicted in Fig. 1."

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B. Response to applicant's argument

1. Regarding applicant's argument number 1, it should be noted that the point detector connecting rod of the Hartung reference do in fact meet the claim limitation of a point detector connecting rod that is substantially straight and at least partially threaded.

Contrary to applicant's contention, the figs. 3-4 of the Hartung reference show a substantially straight connecting rod with threaded ends. Applicant's argument based on the fact that a couple of minor bends is shown in fig. 4 is weak to obliterate the fact that the connecting rod is substantially straight since no angular requirement with respect to the horizontal axis is placed on the connecting rod in the independent claims. The broad terminology of a substantially straight connecting rod does not remove the possibility of minor bends in the rod.

Moreover, applicant's arguments regarding exhibit B and exhibit C is not understood since in relation to other components such as operating rod, lock spread rod, lock connecting rod or connector rod, the detector rod or bar would normally be offset and not be on the same plane as these components as shown in fig. 1 of applicant's drawing for the switch machine to operate. The offset linkage or couplings known as exhibit B and Exhibit C identified in figs. 4 and 6 of the drawings are necessary for the operation of the machine.

***Conclusion***

**6. THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Frantz F. Jules whose telephone number is (703) 308-8780. The examiner can normally be reached on Monday-Thursday and every other Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph S. Morano can be reached on (703) 308-0230. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.



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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Frantz F. Jules  
Primary Examiner  
Art Unit 3617

FFJ

May 24, 2005

**FRANTZ F. JULES**  
**PRIMARY EXAMINER**

A handwritten signature in black ink, appearing to read 'Frantz F. Jules', written over a horizontal line.